

KHARSONSKIY, G.P.

Clinical aspects of late complications following tuberculous
meningitis in adults. Vrach.delo no.3:267-271 Mr '60.

(MIRA 13:6)

1. Odesskaya oblastnaya bol'nitsa i klinika nervnykh bolezney
Odesskogo meditsinskogo instituta.

(~~MMNINGES~~—~~TUBERCULOSIS~~)

OSTROVERSHENKO, V.T., inzh.; KHARSON, M.S., inzh.

Amplidynes with a special excitation winding. Vest. elektro-
prom. 34 no.7:54-57 J1 '63. (MIRA 16:8)

KHARSUN. M.S. mayor meditsinskoy sluzhby

Organization of first aid at a medical assembly station. Voen-med.
zhur. no.1:60-63 Ja '56 (MLRA 10:5)

(MEDICINE, MILITARY AND NAVAL,

med. assembly stations, first aid serv.) (Rus)

(FIRST AID,

on military med. assembly stations) (Rus)

Kharsyev, F.

Irrigation Farming

Collective farm is ready to receive its water.

Kolkh. proiz. 12 no. 5, 19 2.

Chairman, Kolkhozim Melotov

Monthly List of Russian Accessions. Library of Congress. November 1952. Unclassified

KHART, G.

7512 KHART, G., I P. MAGIDOVICH

MORSKOY PUT' V INDIYU--RASSKAZ O PLAVANIYAH I PODVIGAH PORTUGAL' SKIH.
MOREKHODOV, A TAYZHE O ZHIZNI VREMENI. DONA VASCO DA GAMA, ADMIRAL, BITSE
KO OIYA INDII GRAFA VIDIG'RY. PEREVOD S. ANGEL H. V. BASHKINA VSTUPIT.
STATIYA I RED. I P. MAGIDOVICH. M., 12D. INOSTR. LIT., 1954. 231 s.s.
KART., 31. KART. 23 SM (5R. 70K. V PER.--FIZIOLGR: S. 307-317.--
(65.3196) p

So: Knizhnaya Letopis (page 19) Vol. 7, 1955

THART, S.E.

USSR / Plant Physiology. Mineral Nutrition

H-3

Abs Jour : Ref Zhur - Biol., No 16, 25 Aug 57, No 68946

Author : Berr, G.O., Tonimoto, T., ~~Khart, S.E.~~, Forbs, A.,
Sadaoka, G., Eshton, F.M., Fein, D.Kh., Silva, D.A.,
Sloun, G.E.

Title : The Use of Radioisotopes on Sugar Plantations of the
Hawaiian Islands.

Orig Pub : In the coll; Frimenonio radioaktivnikh izotopov v prom-
sti, meditsina i s. kh., M., AN SSSR, 1956, 677-694

Abstract : In experiments with sugar cane on a plant having 16
stalks, one leaf on one stalk was fed by $C^{14}O_2$; 44 hours
after feeding, the stalk which received the extra feeding
contained only 68.5% of all the assimilated C^{14} , the
roots contained 17.2%, and in all the remaining stalks
14.3%, while $\frac{1}{2}$ of this quantity was contained in one of
the stalks and the remainder contained but small quanti-
ties, up to 0.003%. Six hours after feeding $C^{14}O_2$ the

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L 18910-63 EWP(q)/EWT(m)/BDS AFPTC/ASD JD
ACCESSION NR: AT3001903 S/2912/62/000/000/0118/0121

AUTHOR: Khartanovich, A. Z. 53

TITLE: Effect of impurities on the form of crystals of chlorous ammonia (sal ammoniac) 27

SOURCE: Kristallizatsiya i fazovyye perekhody*. Minsk, Izd-vo AN BSSR, 1962, 118-121

TOPIC TAGS: crystal, crystallization, crystallography, impurity, chlorous, ammonia, sal ammoniac, aqua ammonia, NH_4Cl , single crystal, FeCl_2 , CuSO_4 , CuCl_2

ABSTRACT: The paper describes an experimental investigation of the effect of additions of FeCl_2 and of supersaturation on the external shape of single crystals of NH_4Cl grown from aqueous solutions. Aqua ammonia with a prescribed amount of impurities was placed in a hermetically sealed crystallizer with a water-type thermostat. A primer was inserted and rotated; the sense of rotation was reversed every 30 sec. Supersaturation was achieved by cooling. FeCl_2 was present in quantities from 1.5 to 4.5 g/50 g NH_4Cl ; the rate of decrease of temperature varied from 0.1 to 1°C per day. In the absence of such impurities, large single

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ACCESSION NR: AT3001903

crystals cannot be grown from aqua ammonia; small irregular dendritic crystals precipitate instead. When FeCl_2 is added to the 50-g NH_4Cl solution, the following is observed: (1) With 1.5 g FeCl_2 at 1.0 to 0.3°/day, dendritic crystals form; at lower cooling rate, greater crystal density; at 0.2°/day, skeletal growth of crystals; at 0.1°/day, irregular cubic face formation with curved edges, bumps, and steps, growths, and irregularly oriented parasites; some twinning; opaque yellow-reddish crystals; (2) with 2.0 g FeCl_2 and 0.1°/day, straight-edged cubes form with plane but bumpy faces; semitransparent crystals; pale-yellow color; (3) with 2.5 FeCl_2 and 0.1°/day, straight-edged even-faced cubic crystals form, with few parasites and distortions; almost transparent; pale-yellow; at greater supersaturations and greater rates of cooling, return to uneven formations, then skeletal crystals, finally thickened dendrites; (4) with 3.0 g FeCl_2 and 0.1°/day, perfect cubic crystals, almost colorless and transparent; at greater supersaturation and higher rates of cooling, return to irregular formations of reddish-orange color; (5) with 3.5 g FeCl_2 , too, similar characteristics as in (4); (6) with 4.0 and 4.5 g FeCl_2 , perfect crystals are achieved even with small degrees of supersaturation, but they are smaller. Thus, the introduction of a suitable quantity of FeCl_2 permits the growth of purely cubically-shaped single crystals of sal ammoniac. Another test series was performed to determine the effect of additions of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ and CuCl_2 on the growth of single crystals of sal ammoniac from

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L 18910-63

ACCESSION NR: AT3001903

aqueous solutions. Bluish-green semitransparent crystals of tetragontrioctahedric shape were grown. The characteristics of the crystals versus the amount of addition varied as for FeCl_2 , that is, the external shape changed from imperfect and curved edges to perfectly formed shining crystals, up to an optimal value for $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ of 3.5 g; optimal for CuCl_2 : 1.4 g/50 g NH_4Cl . Optimal cooling rate: $0.1^\circ/\text{day}$, which must be maintained constant. Orig.art. has 2 figures.

ASSOCIATION: 00

SUBMITTED: 000

DATE ACQ: 16Apr63

ENCL: 00

SUB CODE: CH, PH, MA

NO REF SOV: 000

OTHER: 000

Card 3/3

MASLIY, Ivan Petrovich; SLEPUKHIN, Sergey Mikhaylovich; KHARTANOVICH, Ivan
Yemel'yanovich; PERSHIN, B.F., inzh., retsenzents; PREDE, V.Yu.,
inzh., red.; KHITROVA, N.A., tekhn. red.

[Manual for workers in operations offices] Posobie rabotnikam tekhnicheskoi kontory. Moskva, Vses. izdatel'sko-poligr. ob"edinenie
M-va putei soobshcheniya, 1961. 119 p. (MIRA 14:11)
(Railroads—Management)

ACC NR:AP7008288

SOURCE CODE: UR/0102/67/000/001/0058/0068

AUTHOR: Kozubovs'kyy, S. P. (Kiev) -- Kozubovskiy, S. P. (Kiev); Khartebrot, H. A. (Kiev)

ORG: none

TITLE: Controlled delay device for binary signal

SOURCE: Avtomatyka, no. 1, 1967, 58-68

TOPIC TAGS: ~~Controlled~~ delay circuit, pulse generator, shift register, signal processing

ABSTRACT: A contactless controlled delay device (CDD) for binary signals which uses a shift register and a clock-pulse generator with voltage-controlled variable pulse frequency is described. The device operates in the following manner: from the input of the device the applied continuous signal is passed to the forming unit where it is quantized in two equal signals which are converted to a binary signal. The binary signal is then passed through a shift register with a velocity which depends on the frequency of clock pulses and on the number of units in the register. The controlled delay device provides a wide range of time-delay variations (up to 1:2000) and good linearity of its characteristics. The circuits developed of the main units of the transistorized controlled-delay device

Card 1/2

UDC: none

ACC NR: AP7003288

are described in detail (shift register and clock-pulse generator with proportional as well as with inversely proportional frequency control). A polar plot of the frequency response of the developed device is given. Orig. art. has: 9 figures and 28 formuals. [GS]

SUB CODE: 09/ SUBM DATE: 8S-p66/ ORIG REF: 011/ OTH REF: 004

Card 2/2

L 02989-67 EWT(d)/EWP(1) ITP(c) BB/GG

ACC NR: AP6033625

SOURCE CODE: UR/0102/66/000/005/0063/0066

AUTHOR: Kozubovs'kyy, S. F. (Kiev); Khartebrot, H. (Kiev); Moroz, V. M. (Kiev)

ORG: none

TITLE: Digital readout 16C

SOURCE: Avtomatyka, no. 5, 1966, 63-66

TOPIC TAGS: data readout, computer output unit, *BINARY CODE*

ABSTRACT: A simple and reliable four-digit readout unit has been developed. The unit includes a diode decoding matrix for translating binary-coded decimal signals into decimal code and MIKh-90 cold-cathode thyratrons for driving an IN-1 display tube and number memorizing. Power consumption is only 1 w per digit at the rated voltage of 380 ± 100 v. During testing the device operated reliably even at voltages of 220 v—600 v. Orig. art. has: 3 figures.

SUB CODE: 09/ SUBM DATE: 02Apr66/ ORIG REF: 010/ ATD PRESS: 5099

KHARTEK, P. [Hartek, P.]; RIVS, R. [Reeves, R.]

New advances in the study of chemical reactions in the
atmosphere. Usp. khim. 32 no.7:882-895 J1 '63.

(MIRA 16:8)

ARTOBOLVSKIY, I.I.; VEL'DT, Ye.O.; GRODZENSKAYA, L.S.; GUDMAN, T.P.;
LEVITSKIY, N.I.; KHARTENBERG, R.S.

Kinematics of mechanisms; German-English-Russian termino-
logical dictionary. Teor. mash. i mekh. no.94/95:54-68
'63. (MIRA 16:11)

KHARTKE, K.V., inzh.

When was paper invented. Bum.prom. 33 no.10:23 0 '58.
(Paper) (MIRA 11:11)

30464

17.1206
159440

S/138/61/000/011/006/007
A051/A126

AUTHORS: Dodonov, N. T., Khartke, K. V.

TITLE: Fibrous asbestos materials as a replacement for asbestos fabrics

PERIODICAL: Kauchuk i rezina, ²⁰no. 11, 1961, 35 - 38

TEXT: The possibility of producing fibrous materials from non-textile types of asbestos to replace asbestos fabrics used in thermal insulations, and the possibility of producing asbomasticated rubbers from the latter, was confirmed by the authors. The heat-insulating capacity of the produced material - asbothermo-insul, exceeds the heat-insulating capacity of asbestos fabrics by more than a factor of 2. The fibrous material asboplast, used as filler in the production of asbomasticated rubbers, results in the production of articles having mechanical properties twice as great as articles produced from asbestos fabric. The work was conducted at the fabric-weaving laboratory of the All-Union Scientific Research and Designing and Technical Institute of Asbestos Commercial Articles (VNIATI), and at the Laboratory of Commercial-type paper of the Leningrad Scientific Research Institute of the Cellulose and Paper Industry (TsNIIB). The ЦНИИБ (TsNIIB) pilot plant equipment, intended for the production of equistable long fibrous pa-

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Fibrous asbestos materials as a...

S/138/61/000/011/006/007
A051/A126

per by the dry method, was applied. The new material produced by the described method was based on non-textile types of asbestos and cotton glued together with an aqueous emulsion of thermoreactive silicon-organic resin. The physico-mechanical characteristics of the asbothermoinsul and asbestos fabric AT-7 are listed in Table 1. The asbomasticated rubbers were produced from asboplasts of a given composition according to the industrial procedure employed by electro-commercial industrial plants. The higher physico-mechanical characteristics of the asboplast, as compared to those of asboplasts produced from the AT-1 fabric, are explained by a more complete exploitation of the high mechanical properties of asbestos. Data obtained confirmed the expediency of introducing industrial production of asbothermoinsul and asboplast. The latter is considered to be cheaper. The All-Union Conference on Heat-Resistant Asbestos Fabrics (April 12, 1960) adopted a resolution for the immediate introduction of these materials in industry. There are 3 tables and 1 figure. X

ASSOCIATIONS: Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorsko-tekhnologicheskii institut asbestovykh tekhnicheskikh izdeliy, g. Yaroslavl' i Vsesoyuznyy nauchno-issledovatel'skiy institut tsellyuloznoy i bumazhnoy promyshlennosti, g. Leningrad (All-Union Scientific Research

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Fibrous asbestos materials as a...

and Designing and Technical Institute of Asbestos Commercial Articles
city of Yaroslavl', and the All-Union Scientific Research Institute
of the Cellulose and Paper Industry, city of Leningrad)

Table 1. Physico-mechanical characteristics of asbestothermoinsul and asbestos fabric AT-7

Indices	Asbesto-thermoinsul	asbestos fabric AT-7 (GOST 6102-52)
volumetric weight, g/cm ³	0.58	0.58
thermal conductivity coefficient, kcal/m·hr.°C (at 100°)	0.06	0.14
losses during annealing at 700°C, for a period of 2 hrs, %	23.6	32.0
tensility in the initial state, kg/cm ²		
along the base	11.0	65.0
along the weft	11.0	40.0

Card 3/3

KHARTMAN, A.

Polish negative engraving layers. Geod. i kart. no.11:61-69 N
'63. (MIRA 17:1)

KHARTMAN, P. [Hartman, P.]; GERTS, L.G. [translator]

Structural morphology of corundum. Zap.Vses.min.ob-va 91
no.6:672-682 '62. (MIRA-16:2)

1. Geologicheskii i mineralogicheskii institut Universiteta
v Leydene, Gollandiya.
(Corundum crystals)

USSR/Physics - Pulse counter

FD-2343

Card 1/1

Pub. 146 - 8/34

Author : Khartman, V. G.; Leont'yeva, I. N.; Sinyavskiy, A. P.; and
Vasil'yev, L. V.

Title : Amplitude analyzer of pulses with electron-ray tube

Periodical : Zhur. eksp. i teor. fiz. 28, 699-705, Jun 1955

Abstract : The authors describe an analyzer of pulses with the use of an electron-ray tube. The device can classify into 20 channels pulses with amplitude up to 100 volts, with growth time greater than 0.1 microsecond, and with duration less than 30 microseconds. When the counting rate is 17,000 pulses/minute the omission constitutes about 1%. Stability of threshold of the channels is about 2%. They present the block schemes of the system and analyzer tube, a detailed circuit diagram forming the block, and photographs of the pulses. Four references, all in USSR (W. Glenn, D. Watkins, E. Titterton).

Institution : -

Submitted : February 11, 1954

Card 118 - 2/3

Periodical : Usp. fiz. nauk 56/4, 537-593, Apr 1958

Abstract : A table of nuclear moments with the indication of a method and the data given in "Physical Abstracts" volume 12, part 2, 1958, number 1704.

moments, published following V. B. B. from 1958, are mentioned.

Codes for reading the tabulated data and the bibliographical (reference) list are explained. Four-hundred and sixty-five references.

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YESENSKI, B.[Jeszenszky, B.]; KHARTMANN, E.[Hartmann, E.]

Notes on the growth and mechanical properties of NaCl whisker
crystals. Kristallografiia 7 no.3:433-436 My-Je '62.
(MIRA 16:1)

1. Politekhnicheskiy institut stroitel'stva i transporta,
Budapesht.

(Salt crystals)

KHARTMANN, K.; PASSET, B.V.; PAVLUSHENKO, I.S.

Determination of the optimal correlations of volumes of reactors
of complete mixing in a cascade. Zhur. prikl. khim. 37 no. 4:
838-844 Ap '64. (MIRA 17:5)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta.

KHARTENKH, K.; PLOST, B.V.

Use of continuous reactors for studying the kinetics of chemical
processes. Zhur. prikl. khim. 37 no.12:2662-2668 D '64.
(IHM 18:3)

CH. 1) / EWA(n) Feb/P1-4

AP5004924

1000/002, 0021

Amartmann, V.

Alternating- and direct-current voltage amplifier.

Амплитудно- и токовый усилитель, изобретения и товарный знак, пат. 1000/002, 0021

voltage amplifier

This Author Certificate presents an a.c.-d.c. voltage amplifier for signal modulation by means of a mechanical commutator. The commutator cascades with galvanic links and a negative feedback circuit (see the Enclosure). To reduce zero drift and increase the input amplification, a storage condenser is inserted in its circuit. A periodically chargeable amplified signal, discharged by a mechanical commutator, in the amplifier a second storage condenser is inserted in parallel with a measuring instrument. The condenser is discharged simultaneously with the first commutator, setting the measuring instrument during the discharge, orig. art. has:

none

KHARTONIK, A.A.

Case of isolated closed injury of the pancreas. Zdrav. Belor. 5
no.11:59 N '59. (MIRA 13:3)

1. Iz khirurgicheskogo otdeleniya Slonimskoy rayonnoy bol'nitsy.
(PANCREAS--WOUNDS AND INJURIES)

KHARTONIK, A.A.

Huge cyst of the mesentery of the small intestine. Zdrav. Belor.
6 no.2:60 F '60. (MIRA 13:6)

1. Iz khirurgicheskogo otdeleniya Slonimskoy raybol'nitsy
(glavnyy vrach O.P. Viktorova).
(MESENTERY--DISEASES) (CYSTS)

KHARTONIK, A.A.

Rare case of mesenteric lymphadenitis. Zdrav. Belor. 6
no. 7:66 Je '60. (MIRA 13:8)

1. Iz khirurgicheskogo otdeleniya Slonimskoy raybol'nitsy
(glavnyy vrach O.P. Viktorova).
(LYMPHATICS—DISEASES)

KHARTONIK, A.A.

Agricultural accidents and their prevention in Slonim District.
Zdrav. Bel. 7 no. 4:29-30 Ap '61. (MIRA 14:4)

1. Iz khirurgicheskogo otdeleniya Slonimskoy rayonnoy bol'nitsy
(glavnyy vrach O.P. Viktorova).
(~~SLONIM DISTRICT--AGRICULTURE--ACCIDENTS~~)

1. VINVERG, G. G. ; KHARTOVA, L. Ye.
2. USSR (600)
4. Carp
7. Intensity of metabolism in the fry of carp, G. G. Vinverg, L. Ye. Khartova, Dokl. AN SSSR 89 no 6 '53. , pp. 1119 - 1122.
9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

ISAKOV, V.A.; KADYRBAYEV, E.M.; MAL'CHENKO, Yu.I.; KHARTOVICH, Yu.I.

Ways of increasing the productivity of scraper ore handling
in systems with mass caving. Trudy Inst.gor.dela AN Kazakh.
SSR 9:28-35 '62. (MIRA 15:8)
(Leninogorsk region (East Kazakhstan Province)—Ore handling)

ISAKOV, V.A.; KHARTOVICH, Yu.I.

Using conveyors to transport hard ores in mass caving. Trudy
Inst. gor. dela AN Kazakh. SSR 11:35-41 '63. (MIRA 16:8)

(Ore handling—Equipment and supplies)
(Conveying machinery)

ISAKOV, V.A.; KHARTOVICH, Yu.I.; TEN, N.A.

Improving techniques of mining the Sokol deposit.

Trudy Inst. gor. dela AN Kazakh. SSR 13:156-162 '64.

(MIRA 17:7)

AYTASHEV, G.A.; ISAKOV, V.A.; NOGAY, Yu.T.; KHARTOVICH, Yu.I.

Ways of improving the mining of valuable ore deposits with unstable
enclosing rock. Trudy Inst.gor.dela AN Kazakh.SSR 14:18-27 '64.
(MIRA 18:1)

ISKROV, V.A.; KHARTOVICH, Yu.I.; CHERNETSOV, G.Ye.

Ways of improving the drawing and the haulage of ores in the
"Mekel'noye" deposit mines. Trudy Inst. gor. dele AN Kazakh.
BR 19:45-55 '65. (MIRA 18:12)

ISAKOV, V.A.; MAL'CHENKO, Yu.I.; TEN, N.A.; KHARTOVICH, Yu.I.

Advantage of mining low-grade ores in the "Sokol'noye" deposit
mines. Trudy Inst. gor. dela AN Kazakh. SSR. 19:9-18 '65.
(MIRA 18:12)

KHARTSIYEV, N.; SOKOL'NIKOV, V.

Practice in the mechanization of motor vehicle washing. Avt.
transp. 38 no. 5:52 My '60. (MIRA 14:2)
(Motor vehicles--Maintenance and repair)

Khartsiyev PHASE I BOOK EXPLOITATION 565

Belov, A.N., Shatov, S.G., Khartsiyev, N.A., Grab, I.I., and
Cherchik, I.A.

Vosstanovleniye detaley mashin termitnoy naplavykoy; iz opyta avto-remontnogo zavoda (Rehabilitation of Machine Parts by Thermit Resurfacing; Practice of an Automobile Repair Plant) Leningrad, 1956. 15 p. (Series: Leningradskiy dom nauchno-tekhnicheskoy propagandy. Informatsionno-tekhnicheskii listok, no. 15. Svarka i payka metallov) 6,000 copies printed.

Sponsoring Agencies: Leningradskiy dom nauchno-tekhnicheskoy propagandy, and Vsesoyuznoye obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy.

Ed.: Ryzhik, Z.M., Engineer; Tech. Ed.: Freger, D.P.

PURPOSE: This pamphlet is intended for welding personnel employing thermit processes.

Card 1/2

Rehabilitation of Machine Parts (Cont.)

565

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721910003

COVERAGE: The pamphlet presents a brief description of the thermit process adapted to resurfacing of worn out machine parts. No personalities are mentioned. There are no references.

TABLE OF
CONTENTS:

Accessories for Thermit Deposition	1
Rehabilitation of the Driving Wheel of a Caterpillar Tractor	3
Rehabilitation of the ZIS-150 Automobile Reverse Gear	4
Pouring Processes	6
Chemical Composition, Mechanical Properties of the Layer Deposited on the Gear	8
Economic Effect	9
Appendixes	11
Calculating thermit mixture	12
Required quantity of ferroalloys	16

AVAILABLE: Library of Congress

Card 2/2

JG/ad
9-10-58

57-8-11/36

AUTHOR Khartsiyev V.Ye.

TITLE On Simple Methods of Investigation of the Zone Structure of Some Semiconductor Compounds.
(O prostykh metodakh issledovaniya zonnoy struktury nekotorykh poluprovodnikovyykh soyedineniy - Russian)

PERIODICAL Zhurnal Tekhn.Fiz., 1957, Vol 27, Nr 8, pp 1713-1722 (U.S.S.R.)

ABSTRACT Simple and at the same time general expressions (only for certain symmetry types of crystals as well as of the type of character of the chemical compound) are deduced which determine the zone structure in semiconductors. First a general investigation of a one-dimensional problem is carried out. By means of the matrix ratio obtained the three-dimensional lattice system for the compounds of groups III and V (AIIIB^V) of the periodic system, which have the structure of zinc blende, as well as that for semiconductors with the structure of the NaCl type, are investigated. The use of a lattice model for the investigation of the zone structure of the electron spectrum in semiconductor compounds makes it possible to combine the consideration of the character of crystal symmetry with the characteristics of chemical compounds. Because of the use of matrices the calculations become algo-rhythmically simple and clear. (2 illustrations and 8 Slavic references).

ASSOCIATION Leningrad Physical Technical Institute of the Academy of Sciences of the USSR. (Leningradskiy fiziko-tekhnicheskii institut AN SSSR.)

SUBMITTED January 18, 1957

AVAILABLE Library of Congress.

Card 1/1

AUTHOR: Khartsiyev, V. Ye. SOV/57-58-8-5/37

TITLE: Statistics of Impurity Centers With Several Levels in Semiconductors of Germanium Type (O statistike primesnykh tsentrov s neskol'kimi urovnyami v poluprovodnikakh tipa germaniya)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Nr 8, pp. 1651 - 1656 (USSR)

ABSTRACT: This is a discussion of the causes for the existence of a number of levels in donor-acceptor and in acceptor impurities of Au, Cu, Fe and of other complicated impurities in semiconductors of germanium type. Equation (1) for the chemical potential in cases of complicated impurities is deduced, proceeding from the neutrality of the semiconductor. The deduction is based upon the following assumptions: A precised Fermi-distribution, the conception of the tetrahedron structure of the valence electrons in the replaced impurity atom and subsequent filling of the energy levels by electrons: The following cases are considered: 1) A complicated donor-acceptor Au-impurity with 4 levels in the forbidden zone and a certain simple donor impurity with corresponding concentrations. 2)A

Card 1/2

15(0), 15(1)
ATTORNEY:

Colonjovitz, B. T.,
 Doctor of Technical Sciences

207/30-59-2-45/60

FILE

**The Investments of Various Real-Consumers
(Izmenyayemye vkladnyye pol'zovately)**

NOTES

Yevreisk Akademii nauk SSSR, 1959, Nr 2, pp 105-106 (USSR)

By X-ray methods, the crystalline structure of the polyacetylene obtained from the polymerization of acetylene in the presence of H_2O and H_2O_2 was investigated. The results showed that the polyacetylene obtained from the polymerization of acetylene in the presence of H_2O and H_2O_2 was a crystalline polymer. The crystalline structure of the polyacetylene obtained from the polymerization of acetylene in the presence of H_2O and H_2O_2 was investigated by X-ray methods. The results showed that the polyacetylene obtained from the polymerization of acetylene in the presence of H_2O and H_2O_2 was a crystalline polymer. The crystalline structure of the polyacetylene obtained from the polymerization of acetylene in the presence of H_2O and H_2O_2 was investigated by X-ray methods. The results showed that the polyacetylene obtained from the polymerization of acetylene in the presence of H_2O and H_2O_2 was a crystalline polymer.

by I. Mikhlin, Institute Kristallografii Akademii nauk SSSR (Crystallographical Institute of the AS USSR) reported on the structural investigation of some chalcogenides by electron-diffraction.

1. A. G. GUSEV AND L. B. LITVINENKO, Institute of Physical-Chemical Institute (Physical-Chemical Institute) reported on theoretical problems of the semiconductor properties of glass types.

formation in the As_2S_3 and As_2Se_3 systems.

L. A. Gergelys compared the boundaries of vitreous state in these systems with the criteria of glass formation obtained by Robertson and Vinter-Kloym and found that there exists no correlation between them.

2. P. Lazareva investigated the elastic properties of composites for glass types in the $\text{TiO}_2 - \text{As}_2\text{Se}_3$ system.

1. V. Kolyaditskiy spoke of research work in the field of inner
microcirculatory effect done by V. B. Pashchenova.

2. VAVILAN summarized experimental results of the position of the absorption boundary as dependent on the change of composition of glass types.

investigation of the viscosity of glass types in the $As_2S_3 - As_2Te_3$ system.

B. Z. Kalosyete summarised the working results obtained by the Physicotechnical Institute and found that in the materials investigated the short-range order is not changed in the transition from the vitreous into the crystalline state.

of the Institute of Materials Science, Academy of Sciences of the USSR, described the investigation of the semiconductor properties of alluvate and borosilicate glass types with the addition of iron-cobalt and titanium oxides.

Yu. I. Pilyugina, Moscow Institute of Electrotechnology (Moscow Institute of Electrotechnical Glass) outlined the investigation results of the boundaries of glass formation and the electric properties of continuous semiconductor glass types of the composition $\text{Y}_2\text{O}_5 - \text{P}_2\text{O}_5 - \text{R}_2\text{O}$ (R - elements of the

The next conference on semi-conductor glass types will probably be held in 1959.

KHAR-151430, 11/21

KHARTSYEV, V. Ye., and DANILKIN, V. I.,

"Heat and Mass Transfer Under Non-isothermic Conditions."

Report submitted for the conference on Heat and Mass Transfer,
Minsk, BSSR, June 1961.

23112

S/181/61/003/005/017/042
B136/B201

9,4300(1143,1150,1151)

AUTHORS: Gashimzade, F. M. and Khartsiyev, V. ^YE.

TITLE: Energetic structure of complex semiconductors. Calculation of the band structure of Si, Ge, and GaAs by the simplified OPW method

PERIODICAL: Fizika tverdogo tela, v. 3, no. 5, 1961, 1453 -1457

TEXT: Besides the Hall method of equivalent orbits, the method of orthogonalized plane waves (OPW) is a procedure of setting up semiquantitative patterns of the energy band structure of complex semiconductor compounds. Although the good results achieved therewith for semiconductors of the A^{IV} type allowed one to expect this method to be also applicable to A^{III} B^V semiconductors, difficulties arise in this case, one of which has been overcome by Antonchik (Ref. 1: E. Antonchik, J. Phys. chem. Sol., 10, 314, 1959), who has replaced the orthogonalization conditions for plane waves with respect to the ion core by the effective repulsion potential (Ref. 9: P. Gombash, Handb.d. Phys., 36, no. 2, 1956). The second difficulty, i.e. Card 1/ 4

23112

Energetic structure of ...

S/181/61/003/005/017/042
B136/B201

the solution of the Hartree-Fok equation for the wave functions of the lattice atoms, can be overcome by way of approximations only. If the repulsion potentials are used, it is no more necessary accurately to determine energy states of the atoms, and one may therefore use less precise wave functions. Slater functions (Ref. 2: P. Gombash, Problema mnogikh chastits, M., 198, 1953) have been used as approximations in the present investigation. As the calculation remains otherwise the same, only the calculation of the potentials is dealt with. The total potential consists of the Coulomb potential, the exchange and repulsion potentials. In this connection, the values of covalent radii by Pauling (Ref. 13: Pauling. Priroda khimich. svyazi, str. 71, 1947) have been adopted. For checking the approximation and for choosing the Slater functions, also the energy band of Si and Ge was dealt with besides GaAs. Methods and results by Antonchik are discussed for comparison (Ref. 10: E. Antonchik. Chechosl. Fiz. Zhurn., 2, 291, 1959). As opposed to the OPW method, the Hall interpolation method requires considerably larger distances between the energy levels and, therefore, gives inaccurate values for some constants, as, e.g., the cyclotron constant. A. I. Gubanov is thanked for his interest in the work, as well as E. Antonchik and F. Herman for having sent preprints. There
Card 2/4

Energetic structure of ...

S/181/61/003/005/017/042
B136/B201

are 1 figure, 4 tables, and 20 references: 5 Soviet-bloc and 15 non-Soviet-bloc. The three most recent references to English-language publications read as follows: L. Kleinman, J. Phillips Rev. Lett., no. 1, 41, 1960; F. Bassani, J. Phys. Chem. Sol., 8, 375, 1959; H. Hagstrum, J. Phys. Chem. Sol., 8, 211, 1959.

ASSOCIATION: Fiziko-tekhnicheskii institut imeni A. F. Ioffe AN SSSR Leningrad. (Institute of Physics and Technology imeni A. F. Ioffe, AS USSR, Leningrad). Institut fiziki AN Az. SSR Baku. (Institute of Physics AS Azerbaydzhanskaya SSR, Baku)

SUBMITTED: August 25, 1960

Card 3/4

22162

S/048/61/025/004/011/048
B104/B201

24,3500

AUTHOR: Khartsiyev, V. Ya.

TITLE: Parameters of adhesion centers determining the kinetics of photo-thermostimulated effects

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 4, 1961, 469-471

TEXT: The present paper has been read at the 9th Conference on Luminescence (Crystal Phosphors), Kiyev, June 20-25, 1960. Photo-thermostimulated effects are known to consist in a change of the conductivity of a crystal phosphor under various non-isothermal conditions at different excitations and exposures. In the present theoretical investigation, the author restricted himself to unipolar conductivity and one type of adhesion centers with concentrations M . Moreover, two kinds of exposure were considered: one caused impurity-photoconduction, while the other produced band-to-band transitions. The balance of transitions in the unit time, as shown in Fig. 1, leads to system of Eqs. (1)-(2) for the electron concentration $n(t)$ in the conduction band and the electron concentration $m(t)$ at

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Parameters of adhesion...

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B104/B201

the adhesion centers:
$$n'(t) + m'(t) = -[\tau^{-1} + \lambda m(t)] n(t) + aI(t); \quad (1)$$

$$m'(t) = -\alpha m(t) + \gamma [M - m(t)] n(t);$$

$$\int_0^t \alpha [T(t)] dt = \int_0^t [\alpha + a_i i + a_1 I] dt = a(t); \quad (2)$$

In the neighborhood of the maximum of the photo-thermostimulated current, the system has the solution

$$n(t) = aI(t) \tau (1 + \delta_i) + \varphi(t) \tau \left[m_0 + \int_0^t a \delta_i I \exp \left(\int_0^t \varphi(t) dt \right) dt \right] \times$$

$$\times \exp \left(- \int_0^t \varphi(t) dt \right). \quad (3)$$

For $I = 0$, when neglecting the weak temperature dependence of τ , γ and λ are exact solutions of (1) and (2) in the implicit form (4), which, for $p > q$, may be represented by approximation in the form (5):

$$p = \gamma M \tau; \quad q = \tau / \lambda; \quad (4)$$

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Parameters of adhesion...

$$r_0 = \frac{\lambda m_0}{\tau^{-1} + \lambda m_0} < 1; \quad \frac{m}{m_0} = \exp \left(- \left\{ \frac{a(t)}{1+p} + \left(1 - \frac{1+q}{1+p} \right) \times \right. \right. \\ \left. \left. \times [1 - (1-r_0)^{-1} (1 - e^{-\frac{a(t)}{1+p}})] \right\} \right). \quad (5)$$

The solution given here, which takes into account a considerable filling of adhesion levels, the existence of an exposure, the time dependence of lifetime on the carrier concentration in the adhesion levels, and the unbalance between adhesion levels and the conduction band, generalizes the results of the theory of the thermostimulated current, and in addition offers the possibility of studying parameters E , M , a_i , and m_{\max} , especially for $\tau^{-1} \gg \lambda m$. If there are several types of adhesion levels and sufficiently large energy differences between those types, the photo-thermostimulated effects can be examined in some approximation independently for each single type. There are 1 figure and 8 references: 6 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: Haering R., Adams E., Phys. Rev., 117, 451 (1960).

Card 3/4

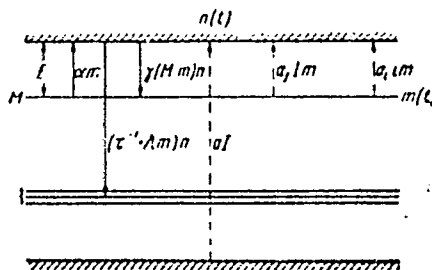
22162

S/048/61/025/004/011/048
B104/B201

Parameters of adhesion...

ASSOCIATION: Fiziko-tekhnicheskii institut Akademii nauk SSSR
(Institute of Physics and Technology, Academy of Sciences
USSR)

Legend to Fig. 1: Balance
of the transitions determining the
kinetics of photo-thermostimulated
effects in case of one type of
adhesion centers. Dotted
transitions are optical ones.



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s/862/62/002/000/028/029

(ν_2 being the number of reduced electric transfer, T absolute temperature, p pressure, and μ the chemical potential). The temperature gradients of the porous membranes were measured with the setup shown in Figure 2, and the volt-ampere characteristics of flat cation-exchange membranes with the same schematic diagram are shown in Figure 3. The results of the calculation for cation-exchange membranes with a germanium electrolyte are shown in Figure 4. It is seen that the dependence on the membrane thickness is not very strong, and the

$$\frac{\Delta E}{\Delta T} = -\frac{1}{T} \left(\frac{1}{\nu_2} + \frac{1}{\nu_1} + \frac{1}{\nu_2} + \frac{1}{\nu_1} \right) + \frac{1}{T} \left(\frac{1}{\nu_2} + \frac{1}{\nu_1} \right)$$

was found to hold, where $\frac{\Delta E}{\Delta T} \approx 0.60$ mv, which is in agreement with the estimated value of 0.3 mv/degree when ν_1 is taken to be 1/2 and $\nu_2 = 1$.

where \mathcal{E} is the diffusion potential and κ is the electric conduc-

tion of the solution. The deviations observed with the volt-ampere charac-

acteristics of the electrodes are discussed in the following section.

S/181/62/004/002/021/051
B101/B102

AUTHORS: Gashimzade, F. M., and Khartsiyev, V. Ye.

TITLE: Energy structure of composite semiconductors. Valence band spectra of anisotropic SnS-type compounds

PERIODICAL: Fizika tverdogo tela, v. 4, no. 2, 1962, 434 - 442

TEXT: On the basis of the unit cell of SnS, a general calculation of the valence band for SnS-type compounds (SnS, SnSe, GeS, GeSe, PbSnS₂, and A^{III}B^V semiconductors) is performed by the method of localized orbits. As the secular determinant (12th order) obtained for the energy cannot be solved, a solution is sought in the symmetric points of the Brillouin zone. Using results of a previous group-theoretical analysis (FTT, 2, 2070, 1960), eight symmetric combinations of localized orbits at $\vec{k} = 0$ are written down. An estimate of the relative magnitude of the interaction integrals furnishes the levels Γ_2 and Γ_7 as the uppermost valence-band levels in $\vec{k} = 0$. A local maximum of $E(\vec{k})$ is found in $\vec{k} = 0$. The effective mass ratios of holes are: $m_y^* : m_x^* : m_z^* \simeq 4 : 1 : 1$, or

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Energy structure of composite ...

S/181/62/004/002/021/051
B101/B102

$m_1^* : m_2^* \approx 4 : 1$. From experimental data on the anisotropy in the conductivity of SnS single crystals it follows that $m_1^* = 0.5m_0$, and for polycrystalline specimens one obtains $m_{\text{mean}}^* = 1.4m_0$. Assuming $m_{\text{mean}}^* = \sqrt{m_1^* m_2^*}$ one finds $m_1^* \approx 3.9m_0$ and $m_1^* : m_2^* = 8 : 1$. In addition, $E_2^* - E_1^*$ was calculated to be 0.1 eV. The Γ_7 band probably manifests itself in optical effects, e.g., in the spectral distribution of photoconductivity and perhaps also in galvanomagnetic effects in the relevant temperature ranges. The spectrum remains qualitatively unchanged by allowing for spin-orbital interaction. A paper of A. A. Nran'yan (FTT, 2, 474, 1960) is referred to. A. I. Gubanov is thanked for a discussion. There are 2 figures and 15 references: 5 Soviet and 10 non-Soviet. The four most recent references to English-language publications read as follows: W. Albers, C. Haas, F. Maesen, J. Phys. Chem. Soc., 15, 306, 1960; S. Asanabe, A. Okazaki, J. Phys. Soc. Jap., 15, 989, 1960; B. Umeda, J. Phys. Soc. Jap., 16, 124, 1961; C. Haas, Corbie, J. Phys. Chem. Sol., 20, 197, 1961. ✓

Card 2/3

Energy structure of composite ...

S/181/62/004/002/021/051
B101/B102

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad (Physicotechnical Institute imeni A. F. Ioffe, AS USSR, Leningrad); Institut fiziki AN AzSSR, Baku (Physics Institute, AS Azerbaydzhanskaya SSR, Baku)

SUBMITTED: September 6, 1961

Card 3/3

36673

S/151/62/004/004/022/042
B102/B104

24.7100

AUTHOR: Khartsiyev, V. Ye.

TITLE: Study of the energy band symmetry in CdSb and ZnSb

PERIODICAL: Fizika tverdogo tela, v. 4, no. 4, 1962, 983-991

TEXT: The symmetry properties of the band structure of CdSb and ZnSb semiconductors is studied and the position of the energy bands is considered from the viewpoint of the general features of the chemical bonds with Ge-type semiconductors. These compounds belong to the space group D_{2h}^{15} (orthorhombic system) and have 16 atoms per unit cell. Their forbidden-band width is ~ 0.5 ev. The D_{2h}^{15} group is first characterized, its elements are given, and a representation is discussed. The subgroup element representations given in tables are used to study the particularities of the energy spectrum, such as the spin effect and the band position. A. I. Gubanov and F. M. Gashimzade are thanked for interest and discussions. The present paper was read at the 2-ye Vsesoyuznoye soveshchaniye po fotoelektricheskim i opticheskim yavleniyam v poluprovodnikov (Second

Card 1/2

S/181/62/004/004/022/042
B102/B104

Study of the energy band...

All-Union Conference on Photoelectrical and Optical Effects in
Semiconductors) (L'vov, October 1961).

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR
Leningrad (Physicotechnical Institute imeni A. F. Ioffe
AS USSR, Leningrad)

SUBMITTED: December 6, 1961

Card 2/2

NASLEDOV, D.N.; ROGACHEV, A.A.; RYVKIN, S.M.; KHARTSIYEV, V.Ye.;
TSARENKOV, B.V.

Structure of direct recombination spectra of gallium
arsenide. Fiz. tver. tela 4 no.11:3346-3348 N '62.
(MIRA 15:12)

1. Fiziko-tekhnicheskiy institut imeni A.F. Ioffe AN SSSR,
Leningrad.

(Gallium arsenide—Spectra)

The chemical bond and energetic structure of certain types of semi-conducting compounds. V. E. Khartsiyev (25 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

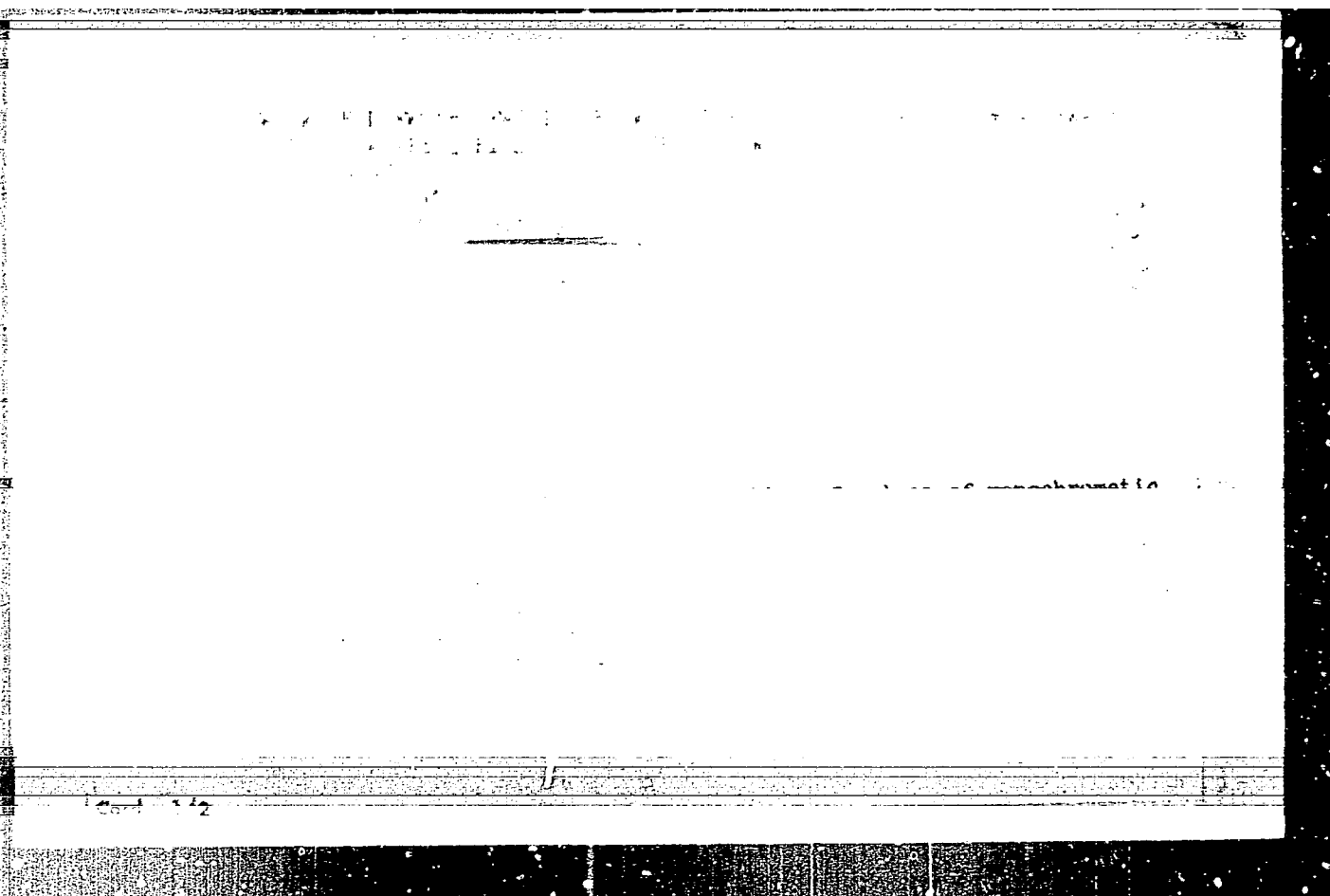
KHARTSIYEV, V.Ye.

Energy structure of semiconducting compounds. Izv. AN SSSR
Ser. fiz. 28 no.8:1266-1275 Aug '64 (MIRA 17:8)

1. Fiziko-tekhnicheskiy institut im. A.F. Ioffe IN SSSR.

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721910003-8



APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721910003-8"

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721910003-8

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721910003-8"

FD/EXT(1)/REC(k)-2/T/ENP(k), ENA h, 11: c 40

ACC NR: AP6011575

SOURCE CODE: UR/0051/66/020/003/0514/0515/42

AUTHOR: Khartsiyev, V. Ye.

ORG: none

TITLE: Resonant absorption of monochromatic radiation in a system with intermediate energy level

SOURCE: Optika i spektroskopiya, v. 20, no. 3, 1966, 514-515

TOPIC TAGS: ruby laser, laser r and d, giant pulse laser, solid state laser, liquid state laser, laser amplifier, bleaching wave

ABSTRACT: This is a continuation of earlier work (ZhETF v. 49, 315, 1965) where successive bleaching of a two-level system by resonant radiation (bleaching wave) was considered. The present paper deals with the physical picture corresponding to one of the mechanisms of single-photon absorption in an optically dense medium, namely bleaching by a powerful pulse of resonant monochromatic radiation in the case when the lifetime of the excited state of the absorbing centers of the medium is small and the excited state acts like an intermediate region. An analysis of the kinetics of the propagation of the pulse of monochromatic radiation in such a medium shows that as the absorbing centers go over from the exciting state into those corresponding to the intermediate level, the medium becomes transparent layer by layer for the monochromatic radiation, so that a bleaching-wave effect is produced. In the case of solu-

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UDC: 621.575.0: 535.001.1

L 25953-66

ACC NR: AP6011575

2

tions of organic molecules which resonantly absorb radiation from lasers, the required energy from a ruby laser is lower than $0.5 \times 10^6 \text{ w/cm}^2$. It is concluded that the wavelike mechanism of absorption of powerful pulses of monochromatic radiation is probably one of the main mechanisms of single-photon absorption in solutions of many organic molecules whose absorption bands coincide with the laser generation lines. In semiconductors this mechanism can occur upon excitation of the electrons of impurity centers in band states, when the quantum energy is smaller than the width of the forbidden band. If the intermediate level is metastable, this mechanism can be used to produce an active medium for solid-state and liquid-state lasers and amplifiers. The authors thank Ye. F. Gross for discussion. Orig. art. has: 1 figure and 3 formulas.

[02]

SUB CODE: 20/ SUBM DATE: 11Aug65/ ORIG REF: 004/ OTH REF: 001/ATD PRESS:
4257

Card 2/2 FW

L 11021-66 SMT(1)/FCC GW

ACC NR: AP6019650

SOURCE CODE: UR/0368/66/004/006/0509/0515

AUTHOR: Khartsiyev, V. Ye.; Ovchinnikov, V. M.

ORG: none

TITLE: Transmission of monochromatic radiation through a resonance absorbing medium

SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 6, 1966, 509-515

TOPIC TAGS: monochromatic radiation, electromagnetic radiation, electromagnetic wave absorption, resonance absorption, stellar radiation

ABSTRACT: The general case of a model problem of the transmission of monochromatic radiation pulses through a unidimensional medium containing irregularly distributed absorption centers of several types with two coinciding energy levels is examined, and the physical picture corresponding to the photobleaching effect arising in an optically dense absorption medium is analyzed. General expressions are derived for values of the photon flux density and absorption coefficient in a resonance absorption medium. The relationships investigated are a generalization of the Bouguer law for the case of powerful fluxes of monochromatic radiation with consideration of absorption saturation. The examined mechanism of nonstationary bleaching of absorption media is common for various spectral ranges of electromagnetic

Card 1/2

UDC: 535.34:535.89

L 11021-66

ACC NR: AP6019650

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721910003

radiation: microwave, IR, UV, and the visible regions. The mechanism can also occur in astrophysical phenomena. One of the possible effects is bleaching (clarification) of the interstellar medium subjected to radiation fluxes of variable intensity arising during explosions of the shells of stars or other nonstationary phenomena. It is emphasized that in this case excitation is accomplished by a continuous spectrum with an almost constant intensity along the line contour. Therefore, as a consequence of the different probability of the absorption of photons in the center and periphery of the line contour, bleaching of the medium will occur at a dissimilar rate for different frequencies within the contour of the line. Orig. art. has: 1 figure and 19 formulas.

SUB CODE: 20/ SUBM DATE: 13Dec65/ ORIG REF: 006/ OTH REF: 005

Card 2/2 hs

4 7171705 ER181/EPF181/EPF181/EPF181) P-4 181/1 181

181/181

AUTHOR: Morichev, V. I.; L'vov, B. V.; Khar'atkov, A. N.

18

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181/181

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with the smaller content. A further study is made of the possibility of the

ENCL: 1

OTHER: 00

KATRUKHA, G.S.; SILAYEV, A.B.; KHARTSKHAYEVA, S.V.

Potassium 4-chloro-3,5-dinitrobenzenesulfonate, a new reagent
for the quantitative determination of amino groups in antibiotics
by the partial substitution method. Biokhimiia 27 no.3:549-556
My-Je '62. (MIRA 15:8)

1. Laboratory of Chemistry of Protein and Antibiotics, State
University, Moscow.
(AMINO GROUP) (ANTIBIOTICS) (CHEMICAL TESTS AND REAGENTS)

LUK'YANOVA, O.I.; KHARTSKHAYEVA, S.V.

Calorimetric study of the hydration of sodium metasilicate. Dokl. AN
SSSR 163 no.3:677-680 J1 '65. (MIRA 18:7)

1. Submitted January 15, 1965.

KHARTULARI, Ye. M.

"Bacteriological and chemical studies of a number of Lakes in the Moscow Region in connection with the decomposition of Sediment and the formation of gases," Tr. Limn. stantsii v Kosine, No 22, p 115, 1939.

KHARTULARI, Ye. M. and KUZNETSON, S. I.

"Microbiological characterization of the processes of anaerobic decomposition of organic matter of the silt of Biloye Lake at Kosina," Mikrobiologiya, 10, p 834, 1941.

KHARFUNDSEV, V. V. --

"The Problem of the Relationship Between Allergy and Immunity."
Cand Med Sci, Kiev Medical Inst, Kiev, 1953. (RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR
Higher Educational Institutions(10)

SO: Sum. No. 481, 5 May 55

L 26378-66 EWI(1)/T IJP(c) GW

ACC NR: AP6007686

(11)

SOURCE CODE: UR/0413/66/000/003/0067/0067

AUTHORS: Sheler, Khorst; Vaybrekht, Otto; Kheyrot, Aleksander; Khartvig, Khorst

ORG: none

TITLE: Device for differential transformation of aerial photographs. Class 42, No. 178506

SOURCE: Izobreteriya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 67

TOPIC TAGS: aerial photography, optics, aerial photograph, photographic device

ABSTRACT: This Author Certificate presents a device for differential transforming of aerial photographs. The device is used in conjunction with a photogrammetric device for processing aerial photographs. It contains an inversor which acts on the basic law of optics, and a photograph support and screen which may be positioned relative to one another in three mutually perpendicular planes. Accuracy in scaling is facilitated by the inversor which features a reduction device for control of the coefficient of aerophoto transformation with allowance made for focal distance. This distance corresponds to the transform coordinates of the current point of aerophoto slope on the horizontal aerial photograph. The inversor

Card 1/2

UDC: 528.722.31

L 26378-66

ACC NR: AP6007686

is made in the form of directional-controlled rods and connecting links attached to each rod, thus allowing rotation about the X-X axis and intersection of the directional at a point on the X-X axis. Electrical control of the coefficient of transformation is maintained by an electrometer circuit controlling the variation of distance from the objective to the photo and from the objective to the screen. This is an electrical bridge circuit for processing data coming from the photogram-
metric device.

✓
SUB CODE: 14/ SUBM DATE: 21Nov65

OPARIN, A.I., akademik; KHART'YAN, Ye.F.; GEL'MAN, N.S.

Localization of hydrogenases and their relation to oxygen in
cells of *Lactobacterium pentoceticum*. Dokl. AN SSSR 157 no.1:
211-214 J1 '64 (MIRA 17:8)

1. Institut biokhimii im. A.N. Bakha AN SSSR.

BAZHENOV, V.A.; KHARUK, Ye.V.

Testing the permeability of pine wood to nitrogen and antiseptic solutions. Trudy Inst. lesa i drev. 65:20-47 '63. (MIRA 16:10)

KHARUS (S.I.)

TABLE I BOOK EXPLANATION

8/1/1999

trial shape some shape po optires)

Material 2 trial shape some shape po optires) 1998 8.
(Materials of the Second Trials Conference on Spectroscopy, held in Soviet
Union, 1998) See "Soviet Metallurgy", 1999, 26 p. Extra slip in
series. 1,000 copies printed.

Sponsoring Agency: Ural City Metallurgical Plant. Metallurgy po optires)
Ural City Metallurgical Plant.

Editor: V. V. Kharus. "Soviet Metallurgy" and "Soviet Metallurgy" both
1999, 26 p. 1,000 copies.

PURPOSE: This collection of articles is intended for scientific analysis, labor
atory workers at ferrous and nonferrous metallurgical plants, and for labor
atory personnel of the metal-working industry, geological and prospecting
organizations, and similar scientific research laboratories.

CONTENTS: The collection contains papers read at the Second Trials Conference
on the spectral analysis of ferrous and nonferrous metals and alloys,
alloys, ores, slag, waste, refractories, refractories and other materials used in in-
dustry. The materials of the conference are divided into two parts: the first
part contains the results of the scientific research of the metallurgical plants
and the second part contains the results of the scientific research of the
nonferrous metallurgical plants and alloys. The present volume is intended to disseminate the latest experience in working with
spectral laboratories, and to report on the results of scientific re-
search. The author thanks B. I. Orlina and Yu. M. Kharus. About all
of the articles are accompanied by references.

Zakharov, G. Ye. Investigation of the Interaction of the Components
of an Alloy on the Degree of Ionization of Ions

Alabovskiy, Yu. M. Some Distribution Characteristics of Particles
in an A-C Arc

Kozlovskiy, O. Ye. Investigation of Evaporation Kinetics of Oxidiz-
ing Metallic Electrodes of an Arc

Sokolov, A. V., O. I. Gerasimov, and V. P. Shchegolev. Double Re-
fraction of Uniaxial Structures of Crystals

Samoylov, Yu. M. Problem of the Entry of the Probe Material Into the
Furnace Channel During the Spectral Analysis of Steel

Mel'nik, M. O., and E. I. Zhurav. Application of Constant Electric
Field Transfer for Eliminating the Effect of Composition, Structure,
and Mass of Sample During the Spectral Analysis of Certain Alloys

Kharus, Yu. M., G. P. Yurkevich, and V. I. Vasilov. Investiga-
tion of the Effect of Structure on the Spectral Analysis Results
of Structural Steel

Kharus, Yu. M., V. I. Vasilov, and D. Ye. Shchegolev. Effect of
Transfer on the Results of the Spectral Analysis of High-Speed
Cutting Steel

Yurkevich, G. P., A. I. Zakharenko, G. V. Kozlovskiy, V. P. Kharus,
and V. I. Vasilov. Spectral Analysis of Steel With a Modernized
PDS-1 Instrument

Bentilskiy, B. S. Spectral Analysis of Gases Contained in Metals
and Varying Content of Components

Shchegolev, A. B. Spectral Analysis of Multicomponent Systems With a
High and Varying Content of Components

Shchegolev, A. B., M. A. Shchegolev, and E. A. Kharus. Spectral
Analysis of 1% and 7% Permeation

Kharus, Yu. M., A. B. Shchegolev, V. I. Vasilov, E. I. Zakharenko,
and M. A. Kharus. Spectral Analysis of Permeation, Per-
meation, and Nitrogen Concentration

Kharus, A. V. Role of Internal Standard in the Spectral Analysis of
Various Permeation

Kharus, Yu. M., V. I. Vasilov, and A. E. Zhurav. Spectral Analysis
of Carbon-Steel Alloys

Lobov, L. D. Spectral Methods of Analyzing Products of the Magnesium
and Titanium Industry

Pozdnyakov, O. A. Application of Spectral Analysis at the Sverdlovsk
Metallurgical Plant

Gerasimov, G. I., and V. O. Gerasimov. Spectral Analysis at the
Sverdlovsk Metallurgical Plant

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S/126/60/010/003/002/009/XX
E201, E391

9.4300

AUTHORS: Kharus, G.I. and Tsidil'kovskiy, I.M.

TITLE: Anisotropy of the Photomagnetic Effect in Cubic Crystals

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol. 10, No. 3, pp. 341 - 345

TEXT: If light falls normally (along the z-axis) on a semiconductor plate in a magnetic field, which is applied in the plane xz and makes an angle φ with the x-axis, then an electric field E_1 appears in the x-direction (transverse photomagnetic effect) and a field E_2 appears in the y-direction (normal photomagnetic effect). Anisotropy of the transverse photomagnetic effect appears as a characteristic dependence of E_1 on the angle of rotation of the semiconductor plate about the z-axis. Such anisotropy was observed by Kikoin and Bykovskiy (Refs. 1, 2) in germanium. The present paper gives a theoretical explanation of this anisotropy.

Card 1/3

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S/126/60/010/003/002/009/XX
E201/E391

V

Anisotropy of the Photomagnetic Effect in Cubic Crystals

The authors discussed both photomagnetic effects in crystals of cubic symmetry subjected to weak magnetic fields. Calculations were based on the following two assumptions:

1) a sample possessed impurity conduction in darkness (n-type semiconductor was assumed), i.e. $n_0 \gg p_0$, where n_0 and p_0 are equilibrium densities of electrons and holes, respectively; 2) the photocarrier densities (Δn , Δp) were considerably smaller than the majority equilibrium carrier density (n_0), i.e. $\Delta n = \Delta p \ll n_0$. The second assumption represented conditions of a weak illumination. Calculations for n-type germanium (spherical energy surfaces were assumed) showed that the angular dependence of the photomagnetic effects for any magnetic fields was correctly predicted by the phenomenological theory developed by the authors for cubic

Card 2/3

DOC NR: AP5003412 1001/0046/0053

Dr. Domanskaya, L. I. Kharchenko, I. I. Kharchenko, I. M.

The Nernst-Ettingshausen effect in p-type silicon

Fizika tverdogo tela, vol. 10, no. 1, 1968, p. 111

TAGS: silicon, Nernst-Ettingshausen effect, doping, temperature dependence, concentration dependence, Hall effect

NOTE: The Nernst-Ettingshausen (NE) effect was measured in p-crystal silicon doped with arsenic. The temperature interval was 100--400K. The measurements were made in magnetic fields up to 10 kG directed in all cases along the [111] axis. The temperature gradients in the samples were in the range 1--2 deg/cm. The carrier concentrations were determined by the Hall effect, and varied to 10^{16} -- 10^{20} cm⁻³ arsenic atoms. The values obtained for the NE coefficient and its temperature dependence are illustrated

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SESSION NR: AP5003412

1 of the enclosure. An analysis of the conditions for the validity of the Born approximation and the screened Coulomb potential has shown that the Brooks-Herrnstein formula for the probability of scattering by impurity atoms is valid for the conditions of experiments. A reversal of the sign of the NE effect at arsenic contents was observed, but is not explained by the formula. A coefficient K determined by the scattering cross section and independent of the mobility is introduced as a characteristic of the NE effect. The experimental and theoretical values of this coefficient are compared and the discrepancy between them are explained by taking into account the role of the "ion core" in scattering in the case of a large degree of ionization. Orig. art. has: 16 formulas, 5 figures and 1 table.

ORIGINATOR: Institut fiziki metallov AN SSSR, Sverdlovsk (Institute of Metal Physics AN SSSR)

2/4

FOMENKO, V.M., inzh.; KHARUZIN, M.Ye., inzh.

Operation and repair of regenerative air preheaters. Elek. sta. 34 no.11:
85-37 N '63. (MIRA 17:2)

KHARUZIN, M.Ye., inzh.

Experience in using acid in cleaning TGM-151 boilers. Elek. sta.
35 no.11:64-65 N '64. (MIRA 18:1)

38
ACCESSION NR: AP4003198

s/0241/63/008/012/0047/0050

AUTHOR: Kharvat, Z.; Shmagel', Yu.

TITLE: Investigation of vessel regeneration in skin wounds as an objective method for determining changes in the healing process following x-irradiation

SOURCE: Meditsinskaya radiologiya, v. 8, no. 12, 1963, 47-50 (including insert facing p. 49)

TOPIC TAGS: skin wound, vessel regeneration, wound healing, postirradiation healing, skin wound healing, blood vessel regeneration

ABSTRACT: An earlier study has established that vessel regeneration in skin wounds of nonirradiated rats passes through a series of three qualitatively different stages. The authors recommend that these stages be used as an objective criterion in evaluating skin wound regenerative processes in irradiated animals. To determine the regenerative stage of vessels in a wound, rats are first anesthetized and the thoracic cavity is opened. Then the left ventricle of the heart is punctured to introduce a heated (50°C) mixture (30-50 ml) of gelatin, ink, and a few other substances through a fixed syringe

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ACCESSION NR: AP4003198

in the ascending artery. The animal is placed in cold water to cool the mixture in the vessels. Then a square skin flap is cut with the wound in the center. The skin is separated from the base of the wound and both are fixated in Carnoy solution and then placed in glycerine. With a stereoscopic microscope the vessel regeneration stage is determined in the skin preparations. Orig. art. has: 5 figures.

ASSOCIATION: Katedra gistologii i embriologii meditsinskogo fakul'teta Karlova universiteta v gradtse Kralove (Histology and Embryology Department of the Medical Division of Charles University)

SUBMITTED: 04Jul63

DATE ACQ: 09Jan64

ENCL: 00

SUB CODE: AM

NO REF SOV: 000

OTHER: 001

Card
2/2

S/137/62/000/003/150/191
A052/A101

AUTHOR: Kharvud, Yu. V.

TITLE: The phenomenon and mechanism of stress-corrosion cracking

PERIODICAL: Referativnyy zhurnal; Metallurgiya, no. 3, 1962, 84, abstract 3I538
(V sb. "Korrozion. rastreskivaniye i khrupkost". Moscow, Mashgiz, 1961, 7-25)

TEXT: The paper discusses the factors affecting the stress-corrosion cracking, the mechanism of stress-corrosion cracking, the systems of alloys liable to the intercrystalline cracking and the systems of alloys liable to the intracrystalline cracking, the development of cracks. There are 36 references.

N. Yudina

[Abstracter's note: Complete translation]

Card 1/1

PHARYAKIN, YU, V.

Illustrators

More about Agin and Fedotov. Iskusstvo 15 No. 2, 1952

Monthly List of "ussian Accessions, Library of Congress, August, 1952. Unclassified.

AUTHOR: KHARYBIN, A.E. PA - 2833
 TITLE: Analysis of Errors at Determining mean Value of the Random Magnitude and its mean-square Error Due to Finite Time of Observation. (Analiz oshibok v opredelenii srednego znacheniya sluchaynoy velichiny i yeye kvadrata, svyazannykh s konechnost'yu vremeni nablyudeniya, Russian)
 PERIODICAL: Avtomatika i Telemekhanika, 1957, Vol 18, Nr 4, pp 304 - 314 (U.S.S.R.)
 Received: 5 / 1957 Reviewed: 6 / 1957
 ABSTRACT: The problem consists in finding such a value T of the time of observation, in which the relative mean square error σ will not exceed a certain value σ_{max} . The analysis of errors committed on the occasion of the determination of the mean value of the random magnitude and its dispersion, which are connected with the finity of the time of observation, is carried out. First, the probable mean square error and its relation to the correlation function is determined. Next, the observation interval according to the given error σ_{max} and according to the probable correlation function is determined. According to the formulae obtained nomograms were computed, with the aid of which it is possible to ascertain whether the observation interval was sufficient and whether it is possible to determine the probable mean square errors committed when determining the mean value

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APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721910003-

Analysis of Errors at Determining mean Value of the Random Magnitude and its mean-square Error Due to Finite Time of Observation.

of the random magnitude and its dispersion for a selected interval of observation. It is shown how to deal with the nomogram, and as a typical example the case is discussed, in which the correlation function of the random process may be represented in the following form:

$$R(\tau) = ce^{-\alpha|\tau|} \cos B\tau$$

Here $c = 10^{-2}$ or -40 db, $\alpha = 20$, $B = 40$.
 (3 illustrations).

ASSOCIATION: Not given
 PRESENTED BY:
 SUBMITTED: 13.3.1956
 AVAILABLE: Library of Congress.

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KHARYBIN, A.E.

50V/2087

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PHASE I BOOK EXPLOITATION

SOV/4884

Vysotskiy, Bogdan Fedorovich, and A. Ye. Kharybin

Radiolokatsionnyye ustroystva. Ch. 1: Osnovnyye voprosy proyektirovaniya (Radar Systems. Pt. 1: Basic Problems in Designing) Moscow, Oborongiz, 1960. 160 p. Errata slip inserted. 14,000 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy ordena Lenina aviatsionnyy institut imeni Sergo Ordzhonikidze.

Ed.: Yu. G. Zakharov, Candidate of Technical Sciences; Ed. of Publishing House: A.G. Kuznetsova; Tech. Ed.: V.I. Oreshkina; Managing Ed.: A.S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for students in advanced university courses of radio engineering. It can also be used by technical personnel in plants and design offices.

COVERAGE: The book examines the problems of designing radar apparatus. Methods of computation of the basic parameters of aviation radar equipment and of the

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APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721910003

Radar Systems. Pt.1 (Cont.)

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characteristics of devices used in automatic search and tracking are reviewed. A description is presented of the special design features related to the installation of the apparatus in aircraft. Chapters I, II, and IV were written by B.F. Vysotskiy; Chapter III by A.I. Kharybin. The authors thank A.G. Saybel', A.A. Gapeyev, V.N. Gorshunov, and P.A. Bakulev, Candidates of Technical Sciences, for their advice, and B.A. Voynich, Candidate of Technical Sciences, for his assistance in publishing the book. There are no references.

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ACC NR: AT6037050

SOURCE CODE: UR/0000/66/000/000/0134/0141

AUTHOR: Kharybin, A. Ye. (Candidate of technical sciences, Docent); Dzhavadov, G. G. (Candidate of technical sciences); Chertkov, N. I. (Engineer)

ORG: none

TITLE: The spectrum of an amplitude modulated sequence of video pulse packets

SOURCE: Moscow. Aviatsionnyy institut. Teoriya i tekhnika radiolokatsii (Radar theory and techniques); sbornik statey, no. 1. Moscow, Izd-vo Mashinostroyeniye, 1966, 134-141

TOPIC TAGS: radar, spectrum analysis, signal detection

ABSTRACT: The spectrum of an amplitude modulated sequence of video pulse packets is investigated for the case when the ratio of pulse repetition rate to packet repetition rate is a whole number or a fraction. Expressions are obtained for the amplitude of the modulation function's first harmonic. Relationships are established between the packet repetition rate and the pulse repetition rate inside a packet. When the ratio of pulse repetition rate to the switching frequency is even and also when this ratio is a fraction with an even numerator, the combination components of the spectrum do not fall on the useful signal frequency. When this ratio is odd and also when the ratio is a fraction with odd numerator values, the combination components of the spectrum fall on the signal frequency and may either increase the signal amplitude if the initial

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UDC: 621.396.963.001(04)

ACC NR: AT6037050

phases of the pulses and of the switching function coincide, or they may decrease the signal amplitude if the initial phases do not coincide. In order to avoid the superposition of combination components on the useful signal, it is necessary to provide for rigid synchronization between the pulse repetition rate and the switching rate. If this condition is not satisfied, a parasitic modulation of the signal will be produced by the superposition of the combination components. Orig. art. has: 2 figures, 12 formulas.

SUB CODE: 17,09/

SUBM DATE: 15Jul66/

ORIG REF: 003

Card 2/2

ACC NR: AT6037051

SOURCE CODE: UR/0000/66/000/000/0142/0147

AUTHOR: Kharybin, A. Ye. (Candidate of technical sciences, Docent)

ORG: none

TITLE: The transformation of the amplitude modulated periodic sequence of video pulses by means of a peak detector

SOURCE: Moscow. Aviatsionnyy institut. Teoriya i tekhnika radiolokatsii (Radar theory and techniques); sbornik statey, no. 1. Moscow, Izd-vo Mashinostroyeniye, 1966, 142-147

TOPIC TAGS: radar, radar navigation, spectrum analysis, frequency conversion

ABSTRACT: The use of a peak detector to transform the spectrum of a periodic sequence of rectangular video pulses, amplitude modulated in accordance with the sinusoidal law, is considered. Problems of this type are encountered in modern radar stations which have a single system of automatic direction tracking and in some pulse radio navigation systems. Expressions for the amplitude and phase of the spectrum components of the output signal with respect to the envelope of the input pulses are derived. Conditions are derived for selecting the parameters of the peak detector. Orig. art. has: 4 figures, 14 formulas.

SUB CODE: 17,09/

SUBM DATE: 15Jul66/

ORIG REF: 002

Card 1/1

UDC: 621.396.967.001(04)

KRYUKOV, G.N.; KHARYBIN, I.I.

Heat-treating furnace for the hardening of rails. Metallurg 6 no.6:
26-29 Je '61. (MIRA 14:5)

1. Starshiy master termicheskogo otdeleniya rel'sobalochnogo tsekha
zavoda im. Dzerzhinskogo (for Kryukov). 2. Rukovoditel' prokatnoy
gruppy teplotekhnicheskoy laboratorii zavoda im. Dzerzhinskogo
(for Kharybin).
(Furnaces, Heat-treating) (Railroads--Rails)

ACCESSION NR: AM4040710

S/0203/64/004/003/0503/0508

AUTHOR: Tsedilina, Ye. Ye.; Kharybina, A. A.

TITLE: Study of the nonhomogeneous structure of the ionosphere on the basis of radio observations of the artificial earth satellites Cosmos 1, Cosmos 2, and Cosmos 11 at coherent frequencies

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 3, 1964, 503-508

TOPIC TAGS: Cosmos 1, Cosmos 2, Cosmos 11, ionospheric inhomogeneity, artificial earth satellite, doppler shift, coherent frequency, ionospheric inhomogeneity, ionospheric inhomogeneity spectrum, coherent oscillation

ABSTRACT: The phase differences in the coherent oscillations radiated from Cosmos 1, Cosmos 2, and Cosmos 11 at 20.005 and 90.0225 mc were recorded in 1962 and 1963 at various Soviet stations. The recordings were made for various months and for different hours of the day. Measurement of these phase differences made it possible to obtain the ionospheric inhomogeneity spectrum $W(\rho)$. Analysis of this spectrum

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ACCESSION NR: AP4040710

showed that: 1) $W(\rho)$ has three steady maxima at $\rho_1 \sim 14-16$, $\rho_2 \sim 28-32$, and $\rho_3 \sim 90-110$ km; 2) apparently, the lengths of ρ_1 , ρ_2 , and ρ_3 do not depend on the hour of the day or season; 3) an investigation of the dependence of $W(\rho)$ on altitude revealed that the maximum number of inhomogeneities occurs at 50-100 km below the main maximum of the F_2 region; 4) the total number of inhomogeneities decreases with an increase in altitude; and 5) small-scale inhomogeneities — $\rho \sim 1$ km — have not been detected at altitudes above 350-400 km. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery* i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, AN SSSR)

SUBMITTED: 24Aug63

ATD PRESS: 3048

ENCL: 00

SUB CODE: OP, ES

NO REF SOV: 005

OTHER: 001

Card: 2/2